

LAW AND NUMBERS

René Sève, *Measure for Measure* VII

Methods and Principles

Sonia Desmoulin-Canselier, *A Critique of Governance by Numbers: Questioning the Legal Stakes of the Digital Age with Alain Supiot* 5

As the omnipotence of digital tools and of the companies marketing them asserts itself, our representations and lifestyles are being transformed. What place can legal normativity occupy in an age fascinated by the velocity, fluidity and apparent efficiency of numbers and automation? This question calls for a rediscovery of Alain Supiot's critique of governance by numbers. We can identify the strengths of his conception of law and its relationship to quantification, but also look into it to find food for thought when analyzing recent developments brought about by digital innovations and their political-economic development framework.

Bruno Deffains, *The Numbers Hiding behind Law* 19

This paper explores the close relationship between mathematics and law, illustrating how numbers have historically found a place in the legal universe. It traces the history of this relationship from Antiquity, when civilizations such as the Babylonians used numbers to structure law, to the modern era when mathematical and statistical tools have become essential in legal work, particularly in the context of digital transformation. It discusses the role of legal indicators and impact studies in "measuring" the law, while highlighting the challenges and limitations of these quantitative approaches. The article closes by stressing the value of working "with numbers", but also that this work must not overshadow the profoundly ethical and human aspects of the law."

Valérie Lasserre, *Law Stemming from Numbers or Risks in Post-Decision Society*33

The question of preserving State sovereignty arises in the era of post-decision society, the era of orientations, guidelines, guidance letters, various incentives and, above all, figures, technical standards and expertise. The post-decision society is one in which public authorities are no longer the masters of decisions, in which decision-making procedures are abandoned in favor of more informal processes, from which emerge standards in a scientific form, where those in charge cannot be found and responsibilities are diluted. How can we ensure the sovereignty of the State in a post-decisional society, where formalized decisions are in strong competition with multiform, mathematized incentives, whose control, which is not organized, is much more limited, uncertain and random?

Cyril Hédoïn, *The Part Scientists Play in Public Decision-Making* 49

Thinking about the part played by scientists in public decision-making tends to be based exclusively on the "technocratic schema", which strictly dissociates judgments of fact from judgments of value, as well as the ends and means of public action. The relevance of the

technocratic schema is, however, questionable, given both the entanglement of facts and values, and the role of values in the work of scientific expertise, particularly in the context of modeling activities. To answer this point, we outline a neo-Weberian approach seriously tackling the distinction between the scientist and the politician, while rethinking the articulation between the two activities in light of contemporary teachings in philosophy of science, political economy and political philosophy. The result is two ideal-typical models: the epistocratic and elitist on the one hand, and the democratic and deliberative on the other.

Hippolyte d'Albis, *Counting People: from Accurate Figures to the Right Order of Magnitude* 61

Born in the 17th century, the science of counting people, whether dead or alive, was initially built around the objective of exact quantification. Today, the general public perceives population trends as highly predictable. But demographers are now moving away from their initial objective, particularly in its projections, which model and quantify uncertainty.

Régis Lanneau, *State, Numbers and Standards* 69

Numbers are now omnipresent in the normative space. If numbers have made their appearance, it is because the norms and normative processes that produce them are imperfect. It is obvious that numbers are themselves imperfect if we expect from them what they cannot represent. When considering numbers as a construction, and this construction as an intellectual discipline forcing us to question ourselves, the imperfection of numbers changes face. And due to this change of face, it is becoming increasingly difficult not to train jurists to read numbers.

Improving the quality of impact studies in France requires us to reflect on the one hand on the research capacities of the administration and civil society and, on the other, on the appropriate normative level when implementing public policies - in our view, the law should simply delegate policies to the administration, as only the latter can expertly implement policies. Regulatory-level policies at a distance from politics are certainly more conducive to evaluation than the legislative level. Finally, the administrative judge could consider a specific control grid to require the Administration to evaluate its draft acts.

Gilles de Margerie, *Assessing Public Policies* 83

The academic field of public policy evaluation has developed rapidly over the last few decades. It is largely based on the idea of assessing the impact of a given public policy by comparing the situation in which it is implemented with a "counterfactual" state of the world in which it is not. This comparison is often difficult to make, and sometimes impossible. Above all, if these impact studies are to play a real role in the countries where they are carried out, they must be drawn up under precise conditions, covering the preparation of the policies themselves, the clarification of their objectives, the processes of consultation and debate for their adoption, the establishment of the metrics to be used, and the way in which the results of the evaluations are taken into account. A whole concept of democratic debate and life is at stake.

Democracy and Numbers

Véronique Louwagie, *MPs Put Numbers to the Test* 99

Members of Parliament have a very special relationship with numbers. Firstly, because modern politics is all about statistics and opinion polls... Secondly, because over the course of their mandates and functions, elected members of Parliament have seen their skills and means of action evolve. The same quantitative approach that has revolutionized the law, the working world... society as a whole, has gradually reached Parliament. Henceforth, the lexical field of "Governance" has replaced that of "Government", and this changes many things in the practice of power. Numbers have become inescapable in the Palais Bourbon, and their importance has

only increased with the latest composition of the hemicycle. As a Member of Parliament and Vice-Chairwoman of the National Assembly's Finance and Budgetary Control Committee, the author takes an empirical look at the MP's mandate in the face of the emergence of numbers in politics, tracing the significant changes in Parliament and the strengthening of its powers. In particular, she discusses the powers of control over government action and the culture of evaluation, but also the important toolbox of the MP. She believes that while numbers have become inevitable, as well as the culture of public performance, political staff must also rely on feedback from the field, as the only way to monitor and relay the blind spots of a policy of numbers.

Jean-François Laslier, *Counting Votes and "Optimizing" Democracy?* 109

This article is devoted to the organization of ballots and the counting of votes in three cases of increasing complexity: the apportionment of seats between countries (example of the European Parliament), the apportionment of seats between political parties, and the choice of projects in the case of a participatory budget. These technical issues involve fundamental concepts of moral and political philosophy in the style of economic philosophy, in particular the trade-offs between efficiency and equality.

Norman Vander Putten, *Quantifying Electoral Priorities: The Legal System as Driver of Constructed Objectivity* 123

Following the example of a few other States, since 2014, Belgian law includes a legislation requiring political parties to have their electoral priorities quantified by an autonomous body, the Federal Planning Bureau. The process aims at making elections transparent and objectifying public debate: It seeks to determine the costs and impacts of some of the policy proposals of the parties represented in the federal parliament. This paper evaluates the law of 22 May 2014. The mechanism has advantages, but two of its features moderate, by their very nature, its effectiveness: the inevitably socially constructed nature of numbers, on the one hand, and its reappropriation by political actors, on the other. On this basis, it is argued that this mechanism illustrates, more generally, the ways in which the law acts as a technology of trust in number.

Jean-Philippe Vachia, *Regulating the Funding of Political Life in France* 135

France's system for regulating the funding of political life is based on the laws of March 11, 1988 and January 15, 1990 whose objectives are to ensure transparency in political funding and fairness between election candidates. The second law created the French Commission nationale des comptes de campagne et des financements politiques (CNCCFP), an independent administrative authority with various responsibilities in this field.

Two subjects are addressed here: the capping and supervision of political funding: how and to what extent? And public aid to political funding: ensuring fairness between candidates, making political parties solvent, but within what limits?

This article examines the financial mechanisms created by the law in the light of the law's aims: experience shows that, while they have undeniably produced positive effects, they nevertheless deserve to be improved or reviewed.

Thomas Perroud, *French-style Impact Assessments and their Evolution* 151

The use of impact studies as a systematic objective has been developing in France since the 1990s. This tool, now enshrined in an organic law, revealed as largely disappointing. The initial aim was reducing legislative inflation and designing texts based on empirical evidence but it has not been achieved. In this article, we attempt to understand the reasons for this failure, which, in our view, stem mainly from three factors: firstly, the tool was monopolized by certain major bodies, including the Conseil d'État; secondly, it was not accompanied considering the function of research in public action; thirdly, the mistake, in our view, was to transform it into an

mechanism for controlling legislative production, when it should be assigned to regulatory production and accompanied by a reflection on the issue of delegation.

Julien Martin, *Numbers, the Great Absentees of Local Government Law?* 181

The categories of local authorities - communes, départements and regions - are not legally defined according to quantitative criteria such as population size, surface area or wealth - numbers, in other words. The result is a wide variety of situations, and too many entities in each category or level of administration. To address this difficulty, the legislator takes these same quantitative variables into account, either to group these territorial authorities together, or to differentiate the rules between them.

Rights of the Human Being

Christian Rodriguez, *Right to Security: Science and Insight* 195

This article traces the Gendarmerie's scientific tradition in the field of public security, from its origins in terms of territorial networking to the most recent period in terms of data management and use of Artificial Intelligence. It also shows that this scientific potential still depends from human decisions and respect for fundamental freedoms.

Félicien Pagnon, *Is it Possible to Quantify Human Dignity?* 205

The notion of human dignity has many different meanings, and the approaches adopted to quantify it are therefore highly heterogeneous. This article describes a number of them and examines the motives behind them, as well as the mechanisms on which they are based. An analysis in terms of the sociology of quantification reveals a common sequence: quantifiers first establish conventions of equivalence, and only afterwards proceed to actual measurement. Some approaches seek to quantify violations of human dignity, while others identify this notion with more easily quantifiable dimensions, such as development or human rights. Recent history of these approaches shows a similar trend towards the pluralization of measurements and the setting of quantified governance objectives.

Vincent-Arnaud Chappe, *Numbers for Equality. Area and Use of Tools for Quantifying Professional Equality* 217

Based on the analysis of several quantification tools designed to equip the passage of the law on gender professional equality in France, this paper aims at developing the notion of a "space of quantification tools" allowing to go beyond overly homogenizing interpretations of a governance by numbers. Instead, it advocates for a pluralistic view of numbers and their effects, and concludes by inviting to an ethical approach to quantification practices that are desirable from a democratic inquiry perspective.

Céline Teyssier, *Digital Appraisal of a Worker's Performance: Risks and Limits* 229

The digital appraisal of a worker's performance by the employer, which, although under fire from critics, does not seem to be waning, could well be entering a new age, that of machine-based appraisals. Such a development calls for a fresh look at the risks and limits of evaluation.

Constantin Brissaud, *The Ambiguities of Quantification: Health Expenditure in the OECD (1972-2001)* 255

This article examines the quantification of healthcare systems at the OECD between 1972 and 2001. This international organization (IO) produced the equivalence conventions that enabled international comparisons of national healthcare systems. Reporting on the gradual success of

the nomenclature initially produced at the OECD and now shared with the WHO and Eurostat, this article argues that this focus on numbers has led to a focus on healthcare expenditure, to the detriment of other dimensions of healthcare systems such as medical deserts, or social inequalities in health.

Economy and Ecology

Laurent Fabius, *Rights of Future Generations: Knowledge, Duty, Power* 269

Present in numerous legal texts, the concept of "future generations", originally essentially symbolic, has acquired a binding force in recent years thanks to the initiative of civil society and under the influence of the courts. The growing number of climate and environmental disputes has highlighted the need to take into account a new long-term perspective.

The courts - and constitutional courts in particular - are in the front line when it comes to giving substance and scope to legal statements about future generations. The exercise of their office leads them to rely on facts identified and measured by the work of scientists, and to adapt traditional duties to the requirements of equity and intergenerational justice, while respecting the principle of the separation of powers in order to meet the objective of preserving the interests of the future.

Corinne Lepage & Christian Huglo, *Numbers and Environmental Law Today* 277

The authors retrace the evolution of environmental law and how it uses numbers, while pointing out the difficulties encountered in certain areas, such as biodiversity and health/environment interactions.

Jennifer Bardy, *Accounting Law, the Keystone of Ecological Transition* 289

Accounting, in its relationship with law, could provide solid support for human organizations in the societal challenge of ecological transition. To understand this role, we need to look at the long history of the relationship between accounting and law, up to the point of their association under the term "accounting law". The term is used to designate a singular branch of law, whose potential has not yet been fully exploited.

Marie-Paule Grevêche, *Notion and Effects of Threshold Figures in Environmental Law* 307

Based on a 2002 reflection on the notion of thresholds in environmental law, this article focuses on the main points that emerged at the time, and compares the notion of thresholds with today's reality, a quarter of a century later. The notion does not seem to have been dulled, as there is still a plethora of numerical values in environmental law. But beyond their quantitative nature, thresholds have both an explanatory value for life and the environment, and an operational value within the law, as "cursors" for submitting to procedures, as "cursors" for incurring liability. Despite the criticisms still directed at the notion, a better use of thresholds would be to consider them as tools subordinate to the logic and principles of legal matters, both in their definition and in their use. Their effects would then serve more efficiently both law and environmental protection.

Ilyana Ait-Ahmed & Solène Kerisit, *The Veiling of Numbers by Law: the Example of Negative Environmental Externalities Caused by Intensive Farming* 317

Law applicable to intensive farming or to products resulting from these farming practices obscures or omits negative environmental externalities caused by these productions. These externalities include negative impacts on environmental spheres and on animal welfare. Legal regimes that apply to intensive farming do not allow for these externalities to be reintegrated,

either because they have been adapted to suit intensive farming and their measures and sanctions lack ambition, or because they do not allow for a distinction between products that have been produced according to intensive farming methods versus agroecological practices. These loopholes allow, directly or indirectly, for the multiplication of negative environmental externalities resulting from intensive farming and prevent the transition to an agroecological model.

Claude Imauven, *How to Reconcile Reinforcement of Sovereignty, Responsibility and Evolution of the Normative Framework* 329

A desired reinforcement of sovereignty goes hand in hand with the country's industrial renewal. However, the legislative framework can act as a brake on project development. A proportionate approach must be adopted and shared between law, economics and climate...

Benoît Cœuré, *Why Does the Ecological Transition Need Competition Law* 337

The ecological transition has become a major focus for competition authorities, particularly in Europe. The aim is, on the one hand, to crack down on anti-competitive practices that might hinder the transition and, on the other, to encourage compliance with competition law for projects that promote the transition. The French Autorité de la Concurrence's decision-making practice, already substantial, is set to develop rapidly, and benefits from the interaction between the Autorité's three functions: litigation function, advisory function and merger control.

Public Finances Figures

Céline Husson-Rochcongar, *The Illusion of Law by Numbers. An Epistemological reflection on the complementarity of legitimacies in public finance* 355

Studying the relationship between law and numbers through the prism of public finance enables us to move beyond the exclusive alternative postulating the superiority of one of these two systems when representing the world. As numerical data are consubstantial with financial matters, which are deployed at the crossroads of political, economic and legal fields, we observe a form of collaboration between normativities, reflecting the complementarity within the financial system between rational-legal legitimacy and technical-managerial legitimacy. In public finance, the systematization of the use of numbers reflects, above all, the evolution of the social value of public management, whose quest for scientificity would enable it to assert itself more easily in the face of political power, with the help of the law, which lends it its force while feeding off the data it incorporates. The complexity of the interactions between players in this technical alliance against politics underlines the importance of a social science approach to the issue, of which financial science is obviously a part, insofar as it requires an interdisciplinary approach.

Philippe Josse, *From Budget Law to Public Finance Law : what is the role of Numbers in Public Financial Law?* 371

In his contribution, the author shows that budget law organizes the transparency and sincerity of numbers, while public finance law ensures that their level remains reasonable.

François Ecalle, *Exercising Budgetary Sovereignty*..... 383

European budgetary rules are flexible enough not to hinder our sovereignty. By adopting multi-year programming laws, the French Parliament is not tying its hands for the future either, since the budgetary principle of an annual basis, which has constitutional value, allows it to pass annual finance laws that deviate from them. The financial markets, on the other hand, are more likely to call our sovereignty into question if our public debt seems unsustainable, by pushing up

interest rates to such levels that measures to rectify public accounts would be necessary. Only the European Central Bank can prevent this. By allowing public debt to rise too high, we are making ourselves dependent on decisions taken in Frankfurt, to the detriment of our sovereignty.

Daniel Gutmann, *What is a Confiscatory Tax?* 393

The advisability of confiscatory taxation has now entered the legal arena. It is impossible to define it in any other way than by referring to the excessive nature of the tax levy, which itself varies according to multiple parameters. The advisability of creating an absolute barrier against the legislator raises a host of legal and political questions.

Pierre Moscovici, *The French Cour des comptes, between Law and Numbers* 399

The First President of the Cour des comptes presents the missions of the financial jurisdictions, between law and numbers, and how they have evolved over time. He also outlines the profound transformation of the institution, brought about by the implementation of the strategic project *Juridictions financières 2025*.

Administrating Justice

Christophe Soulard, *Administrating Justice: A Magistrate's Point of View* 411

I. Acknowledging the role of numbers in the proper administration of justice. A. The act of judging intrinsically has a numerical dimension. B. The effectiveness of legal decisions is framed by numbers. II. However, as the demand for justice increases in size and complexity, the proper administration of justice cannot be addressed only by governance by numbers. A. The quest for performance has made numbers normative. B. Right to appeal versus proper administration of justice. III. The proper administration of justice with or without a reference number. A. Producing meaningful numbers in relation to the fundamental issues at stake in legal decisions. B. Administering justice by taking invisible numbers into account.

Thomas Lyon-Caen, *Numbers and Avocats aux Conseils. Contributing to the Proper Administration of Justice by the Conseil d'État and the Cour de cassation* 425

Attorneys at the Conseil d'État and the Cour de cassation have ministerial status. They are therefore appointed to an office by order of the Minister of Justice. The number of offices is limited, and this limit is subject to change.

Controlling the number of offices is one of the ways in which lawyers at the Conseil d'État and the Cour de cassation can best contribute to the smooth running of the public justice service provided by the Conseil d'État and the Cour de cassation.

This mastery is at the heart of a virtuous system, which must be preserved, and which offers litigants equal access to the courts concerned through the intermediary of an independent professional, expert in the technique of cassation and endowed with a strong code of ethics. The avocat aux Conseils is thus in a position to give an objective opinion on the chances of success of the appeals referred to him, and to carefully select the grounds for cassation to be submitted to the Conseil d'État and the Cour de cassation, in the interests of both the proper administration of justice and the litigant himself.

Fadela Houari, *Hidden and Patent Numbers in Family Law* 433

Statistics on family law, law of individuals and their assets have become an essential, eagerly awaited annual reflection of the state of family justice in France. These raw data are nonetheless insufficient, and must be correlated with the state of the law, case law, sociology, and many

other, less apparent data, without which the conclusions would be partial or erroneous, and would not enable us to fully apprehend our society.

André Ferragne, *The Number of People Deprived of their Freedom* 441

People are deprived of their freedom for criminal, health or administrative reasons. Despite the diversity of the measures to which they are subject, they benefit from comparable rights, present very similar profiles and frequently follow life paths that lead them from one confinement to another.

However, the number of people deprived of their freedom is not easy to ascertain, and cannot be pinpointed as a whole due to the different statistical biases of the administrations in charge. Despite the diversity of the methods used, one thing is certain: whatever the legal regime of confinement, the number of captives is increasing without any link to the population growth or the evolution of delinquency. Accommodation capacities are saturated.

In the absence of a regulation of the number of inmates and of the implementation of a new mental health policy, the number of people locked up is becoming a major obstacle to their reintegration or recovery.

Sonya Djemni-Wagner, *Quantifying the Quality of Justice in Europe. The Role of the CEPEJ* 453

For the past 20 years, the quantification of justice in Europe has essentially been the work of the Council of Europe European Commission for the Efficiency of Justice (CEPEJ), which is not a monitoring mechanism, but a unique tool for analyzing and evaluating judicial systems. It publishes an evaluation report every two years, based on statistical data provided by the 46 member States, enabling comparisons to be made and areas for improvement to be identified. The CEPEJ also contributes to the European Union's evaluation of judicial systems by providing data for the EU Justice Scoreboard and by participating in judicial reform programs, particularly in the Balkan States. The article underlines the CEPEJ's calling to promote human rights and the rule of law, by contributing through its work to a common model of good justice in Europe, beyond a quantification that would only be in line with the new public management.

Magistrates and Computation

Rémy Heitz, *Prosecutor and Data* 469

The increasing use of data in the legal field, including in the daily work of prosecutors, is a significant development that warrants careful consideration. This trend highlights the fact that while data has become an indispensable tool for prosecutors, it is crucial to employ it judiciously and avoid relying solely on it as the primary basis for decision-making. Only by adhering to this principle can prosecutors strive for a "just performance" that balances both the need for efficiency and the upholding of fundamental principles of justice.

Giovanni Tuzet, *Syllogism and Judicial Calculation: A Double Justification Model*..... 483

This article presents a model of judicial decision justification known as the "double justification model". It goes back to Beccaria's idea of the judicial syllogism, which is reinforced by the distinction between "internal" and "external" justification of the decision. The virtues and limitations of this model are analyzed.

Leila Schneps & Alexandre Lochak, *Calculating in the Courtroom: the Role of Mathematics in the Judicial System* 495

In this article we describe the use of mathematics in the judicial arena, via statistical analysis and also the use of mathematical modeling of evidence as an aid to reasoning. We describe the main

situations in which mathematics appear in court, as well as the most frequent pitfalls and misunderstandings which can imperil rather than serve the search for truth.

Sophie Harnay, *Computing and the French Constitutional Judge*..... 507

Neoclassical economic analysis of law describes constitutional judges as rational economic agents who make their decisions on the basis of a cost-benefit analysis. Among all possible decisions, optimizing judges choose the best one. After a brief presentation of the economic analysis of law model of judicial decision-making, we present the various arguments of the constitutional judge's utility function that have been identified in the literature and enabling the judicial decision to be analyzed as the outcome of a calculative rationality. The possibility of a constitutional judge's decision being based on calculation is then questioned in the light of the insights of behavioral law and economics.

Gilles Miller, *Does the Judge of the French Cour des comptes Calculate?* 519

The Cour des comptes, and all the superior audit institutions which, like it, practice jurisdictional functions, maintain complex relationships of legitimacy and identity with numbers and calculation.

The institution was born, several centuries ago, from the need to compute State funds, but was refounded after the Revolution, on bases, which placed public accounts at the heart of its interventions, within the framework of a jurisdictional model that was both restricted and shared.

Being exported to all continents, this "model", confronted to a variety of contexts, has evolved. Bringing the responsibility of public managers into play has taken precedence over the sole jurisdictional clearance of public accounts, without however making it disappear.

Today the missions of the SAIs are diversified but the objectivity of the calculation still guarantees the confidence placed in them. But for them, particularly for those endowed with jurisdictional attributions, it is the broader notion of financial public order that gives a better foundation for their interventions.

Didier-Roland Tabuteau, *Numbers and the Judge* 533

Numbers are an integral part of legal norms, and are indispensable to the judge when understanding context and facts, quantifying decisions and assessing damages. The law can use them as references to which the judge refers, as a measure, or as an element of legitimacy.

Numbers are combined in mathematical reasoning, inspiring judges to apply statistics, equations or mathematical functions.

Beyond the use of such tools, this "mathematics of the judge" must be analyzed in the light of the fundamental axiom of public law: general interest.

Three Questions to Alain Supiot 545

Émeric Nicolas, *Conter le droit plutôt que compter dans le droit. À propos de l'ouvrage de François Ost, Le congrès et autres contes juridiques* 549

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